

9.3.2 Module Quiz - FHRP Concepts (Answers)

Question 1

1. What is the purpose of HSRP?

- It prevents a rogue switch from becoming the STP root.
- **It provides a continuous network connection when a router fails.**
- It enables an access port to immediately transition to the forwarding state.
- It prevents malicious hosts from connecting to trunk ports.

Explanation: HSRP is a first hop redundancy protocol and allows hosts to use multiple gateways through the use of a single virtual router.

Question 2

2. Which nonproprietary protocol provides router redundancy for a group of routers which support IPv4 LANs?

- SLB
- HSRP
- **VRRPv2**
- GLBP

Explanation: The only nonproprietary FHRP used for router redundancy listed in the options is VRRPv2. HSRP and GLBP are both Cisco proprietary FHRPs. IOS SLB is a Cisco-based solution used to load balance traffic across multiple servers.

Question 3

3. A network administrator is analyzing first-hop router redundancy protocols. What is a characteristic of VRRPv3?

- It works together with HSRP.
- It allows load balancing between routers.
- VRRPv3 is Cisco proprietary.
- **It supports IPv6 and IPv4 addressing.**

Explanation: VRRPv3 is a non-proprietary, first-hop router redundancy protocol. It provides features for both IPv4 and IPv6 addressing. HSRP and GLBP are both Cisco-proprietary protocols. GLBP provides load balancing between a group of redundant routers.

Question 4

4. What is a potential disadvantage when implementing HSRP as compared to GLBP?

- HSRP provides default gateway failover only when the active router fails.
- HSRP does not function in a multivendor environment.
- **HSRP does not provide load balancing with multiple active routers.**
- HSRP does not have the capability to support IPv6 addresses.

Explanation: HSRP is a first-hop redundancy protocol that can utilize a group of routers, where a single router is acting as the default gateway and all other HSRP routers will maintain a backup status. GLBP supports load balancing, where multiple active routers can share the traffic load at a single time. Both HSRP and GLBP are Cisco proprietary. HSRP provides default gateway failover when

pre-set conditions are met or when the active router fails, and HSRP can support IPv6 addressing.

Question 5

5. A network engineer is configuring a LAN with a redundant first hop to make better use of the available network resources. Which protocol should the engineer implement?

- HSRP
- **GLBP**
- FHRP
- VRRP

Explanation: Gateway Load Balancing Protocol (GLBP) provides load sharing between a group of redundant routers while also protecting data traffic from a failed router or circuit.

Question 6

6. When first hop redundancy protocols are used, which two items will be shared by a set of routers that are presenting the illusion of being a single router? (Choose two.)

- **IP address**
- BID
- hostname
- **MAC address**
- static route

Explanation: In order for a set of routers to present the illusion of being a single router, they must share both an IP address and MAC address. A static route, BID, or hostname does not have to be shared in this context.

Question 7

7. In FHRP terminology, what represents a set of routers that present the illusion of a single router to hosts?

- **virtual router**
- default gateway
- forwarding router
- standby router

Explanation: In FHRP multiple routers are configured to work together to present to hosts a single gateway router. This single gateway router is a virtual router which has a virtual IP address that is used by hosts as a default gateway.

Question 8

8. A user needs to add redundancy to the routers in a company. What are the three options the user can use? (Choose three.)

- **HSRP**
- **VRRP**
- RAID
- STP
- **GLBP**
- IPFIX

Explanation: Three protocols that provide default gateway redundancy include VRRP, GLBP, and HSRP.

Question 9

9. Which two protocols provide gateway redundancy at Layer 3? (Choose two.)

- **HSRP**
- PVST
- STP
- **VRRP**
- RSTP

Explanation: HSRP (Hot Standby Routing Protocol) and VRRP (Virtual Router Redundancy Protocol) are both Layer 3 redundancy protocols. Both protocols allow multiple physical routers to act as a single virtual gateway router for hosts.

Question 10

10. A network administrator is overseeing the implementation of first hop redundancy protocols. Which two protocols are Cisco proprietary? (Choose two.)

- IRDP
- **GLBP**
- VRRP
- VRRPv2
- **HSRP**

Explanation: The first hop redundancy protocols HSRP and GLBP are Cisco proprietary and will not function in a multivendor environment.

Question 11

11. Which statement describes a characteristic of GLBP?

- **It provides automatic rerouting if any router in the group fails.**
- It does not provide support for IPv6.

- It provides multiple virtual IP addresses and multiple virtual MAC addresses.
- It provides load balancing for a maximum of four gateways.

Explanation: GLBP provides support for IPv6. It provides one virtual IP address and multiple virtual MAC addresses, and there is no such limit of four gateways to provide load balancing.

Question 12

12. A network administrator is analyzing the features that are supported by different first-hop router redundancy protocols. Which statement is a feature that is associated with GLBP?

- **GLBP allows load balancing between routers.**
- It is nonproprietary.
- It uses a virtual router master.
- It works together with VRRP.

Explanation: The GLBP first-hop router redundancy protocol is Cisco proprietary and supports load balancing between a group of redundant routers. VRRPv2 and VRRPv3 are nonproprietary protocols and use a virtual router master.

100%

You have scored **100%**.

Congratulations, you have passed the exam.

Reset
[Review Assessment](#)

